

Book Review

The Navajo People and Uranium Mining

Doug Brugge, Timothy Benally, Esther Yazzie-Lewis, Editors. Albuquerque (NM): University of New Mexico Press; 2006. Hardcover; 210 pages; \$29.95.

Decades before the first atomic bomb was exploded in 1945, radium-bearing carnotite ore deposits were discovered on the Colorado Plateau, a 130,000-square-mile area in the states of Colorado, Utah, New Mexico, and Arizona. This area is also the home of the Navajo Nation. After 1912, most of the radium used by Madame Curie came from ore deposits in the Colorado Plateau.

Vanadium and uranium were originally considered as waste products in the processing of radium. The value of uranium was discovered in the early 1940s during the Manhattan Project. Initially, much of the uranium used to develop atomic weapons came from the Belgian Congo and Canada. When a domestic source from vanadium mines in the Colorado Plateau was recognized, a uranium mining boom soon began. It is at this point in history that the story told in this book unfolds.

The book is a compilation of chapters consisting of written accounts and interviews that examine the history of uranium mining from the Navajo perspective. The primary theme interwoven throughout the book is the victimization of the Navajo uranium miners and their families by the U.S. government. This is a story that is unknown to most of the U.S. population, but is a terrible legacy of the beginning of the Nuclear Age that continues to this day. The book is not a typical historical narrative from one author's perspective. Rather, it is a unique account of the tragic Navajo experience told by those who have worked in the mines and lived through the physical and mental health consequences.

The story begins in Chapter One with a Navajo cultural interpretation of the effects of "leetso," the Navajo word for uranium, meaning "yellow dirt." To the Navajos, leetso is part of the monster they see in atomic power. They feel that they must slay the monster, as it represents "the ultimate disrespect of modern industrial society for that which native societies keep dear: Mother Earth and the Five-Fingered People."

The next eight chapters focus on the experiences of individual Navajo miners and their families. The Navajos maintain an oral history that is passed down from generation to generation. Accordingly, five out of these

eight chapters represent interviews with Navajo miners and their spouses conducted in their native language translated by two of the Navajo editors. These chapters provide an insight into the working conditions, impact on family members, and sense of betrayal by the mine operators and the federal government. The stories told to the interviewers bring a sense of the personal suffering, both physical and mental, caused by this epidemic of radiation-related lung cancer. The stories related by the widows are especially poignant. It becomes clear how much the Navajos revere their elders and how devastated small communities became when so many of their male elders were lost to lung cancer.

In Chapter Four, efforts to address the humanitarian failures of the federal government are introduced. Chief among them is the Radiation Exposure Compensation Act (RECA) of 1990. This act provided for \$100,000 in "compassionate payment" to uranium miners who worked in one or more of 11 states from 1942 to 1971 and were diagnosed with lung cancer or certain nonmalignant respiratory diseases. An additional requirement for compensation was documented radiation exposure, with compensable levels dependent upon age and smoking status. Establishment of these requirements, particularly of residency and exposure levels, was often extremely difficult for Navajos. This chapter provides a good description of the many difficulties encountered by Navajo miners and their families in becoming eligible for compensation.

Chapter 10 further addresses the perceived lack of fairness in the original RECA program of 1990. The chapter questions why smoking status requirements were in apparent disagreement with lung cancer risk estimates made by the National Academies of Science. Specific inequities in the way eligibility requirements were adjudicated by the Department of Justice are described in much detail. Finally, the chapter concludes with a brief description of an amendment to RECA passed by Congress in 2000. Although this amendment addressed some of the inequities that had been protested by representatives of the Navajo uranium miners, many problematic issues remain.

The final two chapters include interviews with widows of Navajo miners, who describe their difficulties with the compensation program and their disillusionment with the federal government's handling of this program. The last chapter provides an update on efforts by the Navajo Nation to protect their environment from

waste material contamination due to previous uranium mining efforts and the current struggle to prevent new uranium mines from opening on the reservations.

I found this book to be a fascinating look into the personal history of the Navajo people in the U.S. nuclear program. As a researcher into the health effects of radiation exposure in underground uranium mines, I found some of the personal accounts to be at odds with current scientific knowledge. However, it is a common reaction among communities affected by potential radiation contamination to blame any cancer or adverse health effect on radiation exposure. The book clearly leans toward advocacy more than a

dispassionate account, but this is understandable given the clear hardships endured for many decades by the Navajo people. It is an excellent complement to Raye Ringholz's *Uranium Frenzy*, which is a more traditional historical account of the uranium mining boom in the Colorado Plateau.

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